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ABSTRACT

The report reviews British Petroleum's "Aiming for College Education" program in Scotland, a 5-year program to raise the aspirations of young people for post-compulsory education and for higher education in particular. The program invites local higher education institutions to consider initiatives in four areas (promotion and marketing, information and guidance, access and outreach, and institutional and curriculum development), with primary involvement of the Universities of Glasgow and Stratchlyde as well as Paisley and Glasgow Colleges. The report is in eight main sections: (1) an introduction; (2) an overview of the structure of higher education in Scotland; (3) the school route to higher education; (4) other routes to higher education; (5) progress within higher education; (6) recent attempts by higher education to recruit new entrants; (7) the place of further education; and (8) a strategy for planning interventions to increase higher education participation, and specific proposals in such areas as curricular integration, special entry schemes, part-time courses, and employer guarantees. Includes 12 references, 7 figures, and a glossary of abbreviations. (DB)

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Aiming for a College Education: A Strategy for Scotland

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Aiming for a College Education: A Strategy for Scotland

A Report commissioned by BP Exploration from the Centre for Educational Sociology in the University of Edinburgh and from the Scottish Council for Research in Education

Andrew McPherson CES

Pamela Munn SCRE

David Raffe CES

1991

Foreword

WHEN BP embarked upon the implementation of its "Aiming for a College Education" programme in Scotland, it was clearly necessary to recognise that the Scottish education system is distinctively different from the rest of the UK. Much of the research which had guided BP's policy debate, and led to the corporate commitment to this project, was not directly applicable to Scotland. It was also known that although Scotland enjoys higher participation rates in post-compulsory education than the rest of the UK, these participation rates still fall far below those of our principal competitors. So the underlying reason for the project - to tackle the problem of low participation - is no less compelling in Scotland than in the rest of the UK.

We therefore commissioned this Report with two principal aims : firstly to provide a description of Scottish education as a backdrop for the project; and secondly to suggest ways in which an industrial sponsor such as BP might make a positive contribution to solving the participation problem. We asked that the findings be presented in a style suitable for an interested, but non-specialist, audience.

We have now had the benefit of the Report's findings for several months and its authors continue to advise BP. They have shown a high level of professional knowledge and produced an imaginative range of ideas for projects. Their advice continues to be valuable as we formulate and evaluate our involvement in further and higher education in Scotland.

No one company, however large, can embark upon all the types of initiatives suggested, and BP is finding it necessary to be extremely selective. But there are many other employers active in education in Scotland and elsewhere, and there may be more who would like to get involved. With them in mind, and in the belief that it will make a useful contribution to the overall education debate, I welcome the publication of this Report.

Kneale Johnson

Director, Aiming for a College Education Project
BP Exploration, Glasgow

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1. Introduction

1.1.Remit

We were asked by BP Exploration in June 1990 to advise it within one month on the implementation in Scotland of its programme Aiming for a College Education. This programme, which is based in Glasgow and has a budget of up to one million pounds over five years, is intended to stimulate the community as a whole to raise the aspirations of young people for post-compulsory education and for higher education (HE) in particular. To this end, local HE institutions are to be invited to consider initiatives in four areas: promotion and marketing, information and guidance, access and outreach, and institutional and curriculum development. BP expects principally to involve four institutions in the west of Scotland: the two universities of Glasgow and Strathclyde, and two public-sector colleges, Paisley College and Glasgow College. As we understand it, the Scottish initiative will parallel similar initiatives that are to start in England and Wales but, beyond this, plans are yet to be formulated.

The purpose of this document is to assist the further formulation of a strategy for the project by identifying pertinent features of education in Scotland and points of comparison and contrast with the rest of the UK. We propose various specific types of project, and we also offer an overview that is intended to help BP itself to develop proposals. We have been asked also to bear in mind not only BP's principal goal of raising aspirations, but also three other goals identified by Aiming for a College Education: an increase in places; the character of HE provision; and the involvement of employers. A further point of reference is the review *Increasing Participation in Higher Education* prepared for BP by Alan Smithers and Pamela Robinson. That review relates mainly to England and Wales, but parts of it have a UK reference, as do the authors' principal recommendations. These are: reform of provision at 16-18 years; incentives for staying on; training of admissions tutors; freedom for pricing courses; and the reform of degree examinations.

1.2. Organisation of this report

The report is in eight main sections. Section 2 gives an overview of the structure of higher education in Scotland. The focus switches in Section 3 to the school route to HE. Section 4 discusses other routes to higher education and is followed by two brief sections: Section 5 on progress within higher education and Section 6 on recent attempts by HE to recruit new entrants. The place of further education is dealt with in Section 7. Finally, Section 8 sets out a strategy for planning interventions to increase HE participation, and concludes with a number of specific proposals. The remainder of this first section comments generally on the rationale for a Scottish programme.

1.3. Scotland and the UK

The place of a Scottish initiative within a UK programme must be judged against several factors. First, there is a partly autonomous structure of government for education in Scotland. The Scottish universities are administered by the Department of Education and Science (DES) through the Universities Funding Council (UFC), but the rest of Scottish education is principally a responsibility of the Secretary of State for Scotland. Where other government agencies are involved (mainly the Department of Employment and the Training Agency) they are nevertheless required to consult Scottish interests and respect Scottish distinctiveness. Moreover, the UFC itself has a new, and as yet largely untested, Scottish sub-committee which advises the UFC in the light of all Scottish HE, both university and public sector. At some point a single planning body for all Scottish HE is likely to emerge with strengthened powers and possibly with responsibility for funding as well. Major developments in the Scottish school system, such as the raising of the leaving age, have always been harmonised with the rest of the UK, and this is likely to remain the case for HE as well. But it is important to remember that there is a separate 'education policy community' in Scotland. However great or small the departures of policy in Scotland from that in the rest of the UK, programmes that recognise governmental discretion and autonomy in Scotland are more likely to succeed.

A second factor is that the pattern of provision and participation in Scotland is distinctive. This is especially true of young Scots and of full-time education. Twenty three per cent of young Scots currently qualify for HE compared with only 16 per cent in England and Wales. Twenty one per cent currently enter HE and this figure is

projected to rise to 30 per cent by 1995. Comparable figures for the whole of GB (ie including Scotland) are only 16 per cent and 20 per cent. These differences reflect culture and history, and also a different institutional structure of provision. Less than five per cent of Scottish pupils are educated privately compared with over 10 per cent in England and Wales. All other Scots attend non-selective comprehensive schools. The terminal Scottish school examination, the Higher, is first taken after only one year of post-compulsory schooling. This gives Scotland a relatively high staying-on rate to 17 years, and contributes thereby to its higher rate of HE participation for the young. Because the ceiling to Highers presentations in any one examination diet is five or six subjects, compared to three or at most four in the GCE A level, the potential for flexibility in the Scottish school curriculum is greater, and the science base potentially larger.

A third factor, following from the first two, is that educational initiatives in Scotland have distinctive forms and effects. Reform of the examination system at 16 years started earlier than in England and Wales and has already seen substantial increases in the coverage of science and mathematics up to 16 years, especially among the less able.

Similarly, the modular reform of all Scottish non-advanced further education (NAFE) under the new National Certificate (NC) has been based on the principle of criterion referencing that Smithers and Robinson see as one key to enhancing participation generally. Criterion-referenced assessment is concerned solely with whether the individual has fulfilled an explicit performance criterion, and does not otherwise attempt to differentiate between the performance of individuals.

Despite these differences, and despite the fact that the school systems are changing in both countries, several of the broader Smithers and Robinson criticisms of schooling in the UK can be applied no less to Scotland than to England and Wales. Both education systems are organised to achieve the progressive selection out of failing students rather than the continued success and participation of the majority. Both systems present major obstacles to the participation and progression of any type of student other than the highly able and the young. Both have left unexamined questions concerning the form, purpose, length and outcomes of HE courses. Neither has successfully integrated vocational education and training after 16 years with provision for other types of course.

2. Higher education

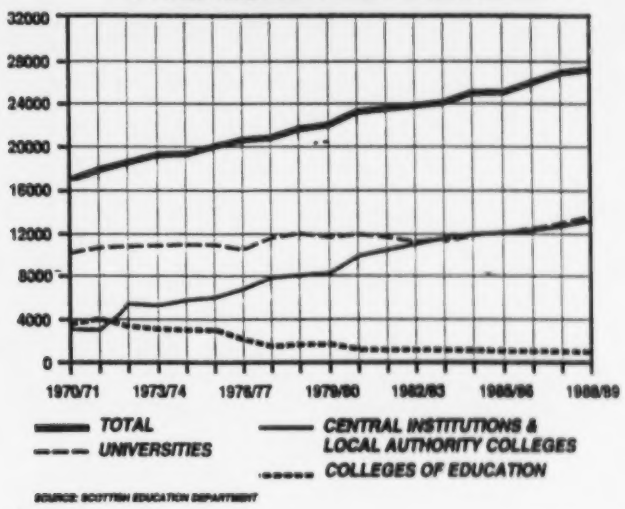
2.1. Overview

Higher education in Scotland is provided in universities (including the Open University) and in two categories of public-sector institution: centrally-funded colleges consisting of colleges of education, agricultural colleges and central institutions (the largest component); and colleges funded by local education authorities. In addition, about one per cent of young Scots, or five per cent of young Scots entrants to full-time HE (FTHE) go to institutions outwith Scotland. The main mode of HE attendance is full-time (including a small and declining proportion of 'sandwich'), but about one third of students take part-time courses. About 80 per cent of FTHE courses are degree-level, but less than 10 per cent of part-time courses. Students in FTHE can be divided into two main groups: entrants under 21 who comprise seven out of ten FTHE entrants, a majority of whom come direct from school; and entrants over 21 of whom roughly half are under 25 years and half are over. Scottish FTHE entrants typically hold qualifications in the SCE often supplemented by the Certificate of Sixth Year Studies. A small but increasing number hold qualifications in the Scotvec National Certificate. It remains open to institutions to waive entrance requirements. Amongst part-time HE (PTHE) students, the ranges of age and qualifications are more diverse reflecting in particular the in-service and vocational context of much PTHE.

2.2. Changing balance of provision

During the past decade the balance of FTHE provision in Scotland has shifted away from the universities and towards the central institutions (Figure 1). Just over half of all FTHE places in Scotland are in universities. This is still a higher proportion than elsewhere in the UK, but is less than the Scottish proportion of ten years ago. One reason for this is that university places were cut in the early 1980s in order to maintain per student expenditure, whereas public-sector places were modestly expanded. Moreover, the proportion reflects the greater average length of university courses.

Figure 1. ***UNDERGRADUATE ENTRANTS TO FULL TIME EDUCATION IN SCOTLAND***



When new entrants rather than places are considered, the universities now provide less than half of the total FTHE provision. Furthermore, universities play a yet smaller role in respect of young entrants to FTHE with Scottish qualifications. This is because some 16 per cent of all FTHE entrants in Scotland come from outwith Scotland; and most of these enter the university sector where they comprise about one third of FT initial entrants (the proportions vary greatly between universities). The Scottish universities now provide only 38 per cent of all FTHE places for Scottish qualified initial entrants. Ten years ago this figure was 48 per cent.

In the light of current changes in university funding the future university/public-sector balance of provision must be very uncertain. It is unlikely, however, that the university share will increase by much unless universities reduce costs per student relative to the public sector. This may be difficult if, as seems possible, the UFC attempts to reduce the numbers and proportions of GCE qualified entrants to the Scottish universities. This possibility, which is viewed with some dismay by the Scottish universities, reflects the UFC belief that it is inefficient to supplement a two-year post-compulsory course in school (the GCE A level) with a four-year course at university. The future of the four-year degree for Scots is also likely to be called into question, though over a longer time scale. It is also probable that differences between universities and public-sector HE institutions will become blurred if, as seems likely, the UFC designates some universities as 'teaching-only' institutions.

2.3. The sectors

Various permutations of mode and level of study, length of course, type of student and entry requirement are to be found in each of the three main types of institution, but not equally so. University provision is overwhelmingly at degree level, for full-time students holding mainly SCE or GCE qualifications, and entering mostly before the age of 21 years. Mature student entry is increasing but comprises only 13 per cent of all university entry by UK domiciled students. With the exception of some professional courses, courses may be either three-year (ordinary or general) or four-year (honours). There is a long-term trend away from the ordinary degree which tends to be regarded, especially in science-based courses, as a failed honours degree rather than as a general education that is valuable in its own right.

By contrast to the universities, advanced provision in the local-authority FE colleges is mainly non-degree and part-time, and mainly for adults. Only one in ten of all students in FTHE are in local authority colleges.

Between the extremes of the university and the FE college, but closer to the universities, lie the centrally-funded colleges. Of these, the agricultural colleges are small, and the colleges of education, though they have broadened their functions in the past fifteen years, must still respond to the ebb and flow of the need for teachers. The main changes in the past fifteen years have been in the central institutions. Numbers

entering both FT and PT courses in the CIs have expanded, and there has been a quantum shift towards degree-level work. In the mid 1970s, only a minority of entrants to FT courses in CIs were at degree level. Today the large majority of CI students enter degree-level courses.

2.4. Issues

In Scotland no less than in England and Wales the order of HE institutions - university, public-sector centrally funded, public-sector locally funded - is an order of status, student preference, qualification levels, and resources and conditions. The questions that arise are mainly, therefore, general to the UK. Is this the arrangement of HE institutions that is best suited to encourage participation and progression? Why should adaptation and change be the least expected of the university sector and most expected of locally-funded colleges? Can the latter play a broader recruiting role similar to that of community colleges in the USA, in respect of adult returners, recruits from vocational education and training, and younger students following an 'alternative route' to HE from school? Should the universities continue to be organised mainly around the needs and attainments of able young students having three or four years to give to full-time attendance?

There are also specifically Scottish questions relating to the four-year degree, cross-border flows, and the potential of a smaller and better integrated system to deliver reforms based on criterion referencing, credit transfer and non-traditional certification. It is often said that people know and understand one another better in the smaller Scottish system. Can this feature be exploited in supplementing, or even supplanting, traditional externally-based certification?

3. School

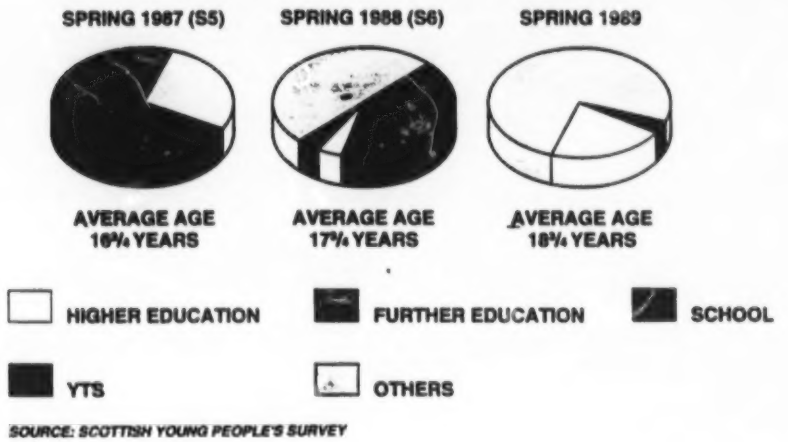
3.1. Participation beyond 16

Compared with England, more Scots stay on in full-time education beyond 16. The difference is not large (probably fewer than five percentage points, although institutional differences make precise comparisons impossible) but may be set against Scotland's more 'working class' population, which one might have expected to have lower staying-on rates than England. The Scottish advantage relates to post-16 transitions, but disappears at age 17 when the proportions remaining in full-time education are similar on both sides of the Border. However, Scottish participation is significantly higher at 18-plus, reflecting higher participation in HE.

The discussion above refers to all full-time education. Many more 16 year olds stay on at school in Scotland. In England more than one in three 16 year olds who stay on in full-time education do so at college rather than school. This compares with fewer than one in ten in Scotland. The BP programme will need to take account of the different pattern of school-to-college transitions in Scotland. Whereas in England full-time non-advanced further education mainly provides an alternative to school after 16, in Scotland a majority of school leavers entering full-time NAFE have already stayed on for at least two terms of post-compulsory schooling. Figure 2 summarises the transitions of a year group of Scottish pupils who were in S4 in 1985/86 over the following three years.

Sixteen year olds who stay on at school tend to have done well in O or S grade exams at 16. This is by far the most important predictor of (and, we infer, influence on) staying-on. Other factors also influence individuals' staying-on decisions. More girls than boys stay on. Children of middle-class and/or well-educated parents are more likely to stay on (they are likely to have better O or S grades, but there is a small staying-on effect over and above this). There are also school influences on staying on (although their source and nature is not well understood). Young people are also more likely to stay on, the higher the local unemployment rate. In general the labour market provides both short and long term incentives to early leaving: a short-term incentive of relatively high wages and attractive full-time employment; a long-term incentive because several career paths (especially for boys) depend upon entry to relevant jobs or training at 16.

Figure 2. ***FULL TIME STATUSES OF A SCOTTISH YEAR GROUP (BASED ON PUPILS IN S4 IN 1985/6)***



SOURCE: SCOTTISH YOUNG PEOPLE'S SURVEY

Although culture and attitudes influence the decisions of young people to stay or leave, the research underlines the rationality of many of these decisions. Young people respond to the various incentives (intrinsic as well as extrinsic) to stay on or leave. This suggests that a strategy for raising participation might seek to alter these incentives in favour of staying on. It might also target the 'middle-attaining' 16-year olds who are currently on the margins of staying on or leaving and most likely to respond to changes in the structure of incentives. A possible approach might seek to reduce the risks attached to staying-on. For many young people staying-on is a gamble: stayers who do not significantly increase their qualifications may find that they have lost out relative to those who left at 16 to take advantage of the labour-market opportunities available then.

Staying-on rates in Scotland have risen almost without interruption since the late 1970s, a steeper and steadier rise than in England and Wales. There are many reasons for this: the changing social-class composition of parents (a result, in part, of a steeper decline in the birth rate to working-class parents); rising levels of parental education; the effects of Standard grade and other reforms of compulsory schooling (which mean, among other things, that more 16-year olds have qualifications to build on); changes in the labour-market context of education, such as the rise in youth unemployment in the early 1980s; and the withdrawal of benefit entitlements from unemployed under-18 year olds in 1988. The last two factors in particular have affected the range as well as the proportion of 16-year olds staying on. Particularly in the west of Scotland, where labour markets tend to be weaker, stayers tend to be more heterogeneous, and less concentrated among academic high-fliers than in the past.

All this means that BP will be attempting to build on a favourable trend. The fact that social and economic changes - many of them common across the UK - seem to have produced a faster rise in staying-on rates in Scotland than south of the border may be evidence that the Scottish system provides a more favourable soil. However, the greater heterogeneity of stayers poses increased problems for schools, and is under review by the Howie Committee (see Section 3.5.1).

3.2. Course structure and curriculum

Scotland's higher staying-on rate (compared with England) is often attributed to the greater accessibility, flexibility and short-term rewards offered by its structure of post-compulsory school courses. Not only is the Highers course more accessible than the A level, but since it is a one-year course and therefore requires a shorter initial commitment, many more Scots take at least one Higher subject than take at least one A level in England. The incentive power of the one-year Higher may be particularly strong in the west of Scotland, where a significant minority of university students have in the past left school with Highers entrance qualifications after only one post-compulsory year (S5 - typically for 16-17 year olds). The incentive of the one-year

Higher is even stronger for those young people - more than a third of each year group - who are too young to leave at the end of what is normally regarded as the last compulsory year (S4) and must stay at school until December of S5; a further five or six months are sufficient to complete their Highers courses and consequently more of this age group stays on to take Highers. The one-year Higher course also means that the second post-compulsory year (S6 - typically for 17-18 year olds) is often used, particularly in the west, to re-sit Highers or to take new Highers subjects, so those who stay on for two years get two bites of the qualifications cherry. (Both post-compulsory years have hitherto been used by many students to re-sit O grades or take new subjects.) In addition vocational qualifications are modularised under the National Certificate (NC). Although most modules taken by school stayers are used to broaden a largely SCE-based curriculum, some schools offer full-time modular programmes for stayers (in addition to those provided for prospective winter leavers who do not expect to complete S5).

Students who stay on for a sixth year may take the Certificate of Sixth Year Studies (CSYS). CSYS is intended to provide opportunities for independent and deeper study of chosen subjects, and thus to prepare for study in HE. But it has an ambivalent status as a qualification for HE. As a result, CSYS tends only to be attempted by students who are relatively confident that they have the Highers passes necessary for entry to HE. (A Higher in the relevant subject is a condition of taking CSYS.) About one half of SCE-qualified entrants to HE have CSYS.

In sum, post-compulsory schooling in Scotland is based on smaller certificated units, more given to incremental step-by-step decision-making. In view of the 'rationality' of many young people's decision-making, mentioned earlier, this may be something on which an intervention programme can build. There are several possibilities. One problem of making use of the opportunities to 'catch up' (through re-sitting exams) is that students may exceed maximum age limits (formal or informal) for entry to jobs or training, or that selectors in higher education may give lower value to re-sits or to exam attempts spread over a number of years. Should an intervention programme seek to alter these 'rules of the game'?

Because the Highers allow for a broader range of subjects (with five subjects at Higher the 'norm' for a university entrant, rather than three subjects at A level), the Scottish post-compulsory curriculum is broader: most stayers do English, and a majority do mathematics. There is also a weaker division between academic and vocational study. Most stayers (at school as opposed to college) follow broadly 'academic' curricula, but this may include Highers or O/S courses in vocational subjects, and there is considerable potential for mixing Highers courses with NC modules. But this potential is not yet fully realised. Nor has the Technical and Vocational Education Initiative yet had much impact on the curriculum of post-compulsory schooling.

The increasing diversity of stayers-on has necessitated a greater diversity of options. At a time of demographic decline this has caused problems for schools in delivering the full range of options. Some regions have introduced consortium arrangements involving neighbouring schools and college(s) (in Strathclyde called ACPGs or Area Curriculum Planning Groups). However, these have not always been successful, for organisational reasons and because students may be reluctant to choose options which involve travel to other institutions in the consortium.

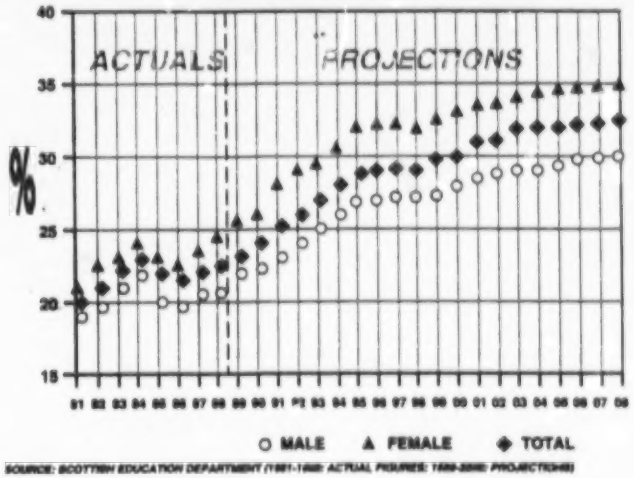
In addition to problems of delivery are problems of choice and guidance. In most regions guidance arrangements at 16-plus are poorly developed, with the result that students may pick subjects or courses which restrict their subsequent options for further or higher education, or which do not qualify them for the courses they would like to enter. Guidance and support for subject choice at 16 and 17 plus are appropriate areas for intervention by the programme, and the need for improved guidance can only increase as the system after 16 becomes more individualised and modular. Another possibility might be to target for special help schools (perhaps those where typically few pupils stay on) which have greatest difficulty in delivering the required range of post-compulsory options.

3.3. Attainments of school leavers

In 1987/88 23 per cent of school leavers had three or more Highers passes, the notional qualification for higher education. This proportion has risen from 20 per cent in 1980/81, and is projected to rise further to 30 per cent by the end of the century (Figure 3). There have been similar or greater rises at lower levels of attainment; following the

introduction of Standard grade assessment for all ability levels, the proportion of school leavers with no SCE awards has fallen sharply (from 24 per cent in 1985/86 to 15 per cent in 1987/88, and still falling).

Figure 3. ***PERCENTAGES OF LEAVERS WITH 3 OR MORE HIGHERS OR EQUIVALENT, 1981-2008***



SOURCE: SCOTTISH EDUCATION DEPARTMENT (1981-1988: ACTUAL FIGURES; 1989-2008: PROJECTIONS)

The social and contextual factors associated with individual attainment are similar to those associated with participation beyond sixteen, discussed above. The explanation for the recent increases in attainment levels is similar to the explanation for recent increases in staying-on rates. Staying-on and attainment are closely related. Sixteen-year olds with good attainments are much more likely to stay on beyond 16, as noted above. The same is true at 17 years: students are more likely to continue for a sixth year, the more fifth-year Highers passes they have. Ten years ago, this trend was less pronounced in Strathclyde, where more 'high-fliers' left to enter higher education at 17. With the rise in HE entry standards in the 1980s, however, it became more important to use the sixth year to improve Highers qualifications. Hence the fifth-year route to HE is now less common in Strathclyde than it once was.

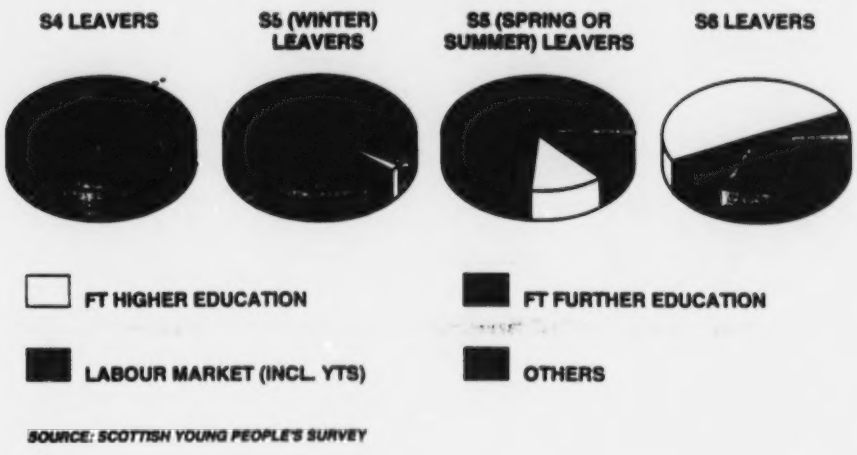
At least two features distinguish the Scottish scene from the rest of the UK. First, Scottish school leavers' qualifications reflect the broader Scottish curriculum. Many more school leavers have maths or physics passes at Higher grade in Scotland, than have maths or physics passes at A level in England. Second, many more Scottish school leavers have Highers passes than have A levels in the UK. This reflects the greater accessibility of the Higher and the higher school staying-on rate. It means that a relatively small proportion of young Scots (14 per cent of HE entrants) qualify for higher education through the vocational route with qualifications typically gained in college. It may also mean that this route could be expanded. Possibilities here are indicated also by the fact that there is a relatively shallow gradient of Highers passes among school leavers: 12 per cent of boys and 15 per cent of girls have at least one Higher but not the three Highers notionally required to qualify for higher education. This suggests that there is a large pool of 'marginal' school leavers who could, given the opportunity and the inclination, increase their attainments to the level required to enter higher education.

3.4. Destinations of school leavers

School leavers' destinations are related to the stage from which they left school, their qualifications, and their gender. About two-thirds of S6 leavers enter further full-time education, mostly higher education: about one third of S5 leavers enters further full-time education, mostly non-advanced courses. Most of the remainder, and most S4 leavers, enter the full-time labour market. Around one in five direct entrants to FTHE from school has left from S5 (Figure 4). This proportion is higher in the west than in the east of Scotland and is associated with the admissions policies of Glasgow and Strathclyde Universities. In the early 1980s two in five school-leaver entrants to these institutions came from fifth year but this proportion has since fallen. There is no major regional variation in the proportions of S5/S6 leavers among entrants to public sector higher education.

Figure 4.

DESTINATIONS OF 1987/8 SCHOOL LEAVERS IN SPRING 1989



SOURCE: SCOTTISH YOUNG PEOPLE'S SURVEY

As mentioned already, the proportion of S5 leavers among university entrants in the west fell during the 1980s. The explanation almost certainly is that admissions requirements became more stringent in a tighter market, and would-be S5 leavers needed to stay on an extra year to improve their qualifications. The chances of entering HE (and especially university) of a school leaver with a given number of Highers passes declined during much of the 1980s. They are now rising again but have yet to attain the levels they were at in the late 1970s.

More girls than boys stay on at school, and more girls qualify for HE. A smaller proportion of the qualified girls enter HE, partly because they are more likely to apply for courses in oversubscribed subjects. The overall proportion of young women entering HE is only very slightly smaller than that of young men.

Schools vary both in their effectiveness in producing pupils qualified for HE, and in the rates at which their qualified pupils enter HE. (By effectiveness we mean 'value-added', or the boost that schools give to pupils of comparable educational potential.) Erstwhile selective schools (senior-secondaries or grammar) tend to do slightly better, but there are many effective newer schools. This is especially true of Catholic comprehensive schools, the majority of which were enabled to prepare their pupils for entry to HE only after comprehensive reorganisation in the 1960s. Given their largely working-class pupil population, Catholic schools produce relatively high proportions of qualified school leavers; and qualified school leavers from Catholic schools are more likely to enter HE than their non-denominational counterparts. The 'Catholic effect' - like the 'rural effect' and the 'unemployment effect' - is partly an effect of opportunity structure: Catholic school leavers have a less-favoured entry into the labour market between 16 and 18 years. We understand, however, that the ethos of many Catholic schools is also distinctive and is explicitly related in some instances to 'the educational ladder'.

3.5. Issues in access to higher education from school

This concluding part of section 3 draws attention to five specific and two general issues that arise.

3.5.1. The Howie Committee: a two-year Higher?

The Howie Committee will report to the Secretary of State for Scotland before the end of 1991 on courses, assessment and certification for post-compulsory schooling. It is widely believed that it will consider the option of removing the opportunity to sit Highers in fifth year, replacing it with a two-year Higher to be taken for the first time only in sixth year. There are some educational arguments for such a move. However, the removal of credible certification that guarantees entry to HE at the end of fifth year could reduce post-compulsory participation rates and also qualification rates for HE.

3.5.2. Supply of HE places: effect of supply on demand

Reference has been made to the decline in the chances of HE entry for qualified leavers in much of the 1980s. University places were cut, and the expansion of public-sector places was sluggish in relation to the increasing qualified output from the schools. It has been calculated that between 1981 and 1986, ten thousand qualified young Scots were lost to HE as a result of under-provision. In the last eighteen months government policy has changed and has reaffirmed the importance of expansion. But HE participation rates for qualified school leavers have still not returned to the levels they were at in 1980.

There are two further reasons why an increase in the supply of places is essential. First, when the supply is restricted, institutions tend to revert to traditional entry criteria, largely on grounds of fairness when faced with an excess of applicants over places. This in turn affects the schools, making it difficult to achieve agreed changes in curriculum and certification that could release mass access.

Second, the supply of places affects pupils' motivation to apply to HE. If anyone is looking to press a button that will have an immediate effect on aspirations for participation among 16-19 year olds, the best bet is the button marked 'supply'.

3.5.3. HE entry, social background and student loans

Provided a school leaver achieves at least the minimum qualifications for HE (three or more Highers), social class and parental education have no effect on the chances of entry to HE, and have little, if any, effect on entry to public-sector HE courses as opposed to university courses. This has remained the case over a decade in which the value of the student grant has declined by a quarter. In the light of this the effect of loans on participation must remain an open question but must clearly be carefully monitored.

3.5.4. Special entry schemes

The University of Glasgow established a special entry scheme for pupils from schools in deprived areas. Originally aimed at schools in Easterhouse and Drumchapel, the scheme now extends to 24 schools. Glasgow University has since been joined by Glasgow College, Paisley College and Strathclyde University in a consortium of HE institutions that aims to attract a broader range of pupils to HE. The scheme is designed to counteract problems of 'cultural distance' and of school qualifications that do not fully express the pupils' potential. It involves contact with pupils as early as S2, pupil visits to the HE institutions to meet a range of staff, and summer schools. A good evaluation of this scheme would be of considerable benefit. The University of Edinburgh and Lothian Region plan a similar scheme, and so does the University of Aberdeen.

3.5.5. National testing

It is worth mentioning here that the Scottish proposals for a national curriculum and national testing concern the 5-14 age range, not 5-16 as in England and Wales. It is too early to predict the impact of the 5-14 programme on O/S grade performance. There are no national tests planned for 14-year olds in Scotland, although there are in England. Furthermore there is to be no national testing in science in Scotland, only in English and maths.

3.5.6. Two curricular philosophies

Across the upper secondary school and higher education, there is now an uneasy coexistence between two curricular philosophies. One is traditional and knowledge-based; the other is non-traditional and competence-based. The traditional approach uses norm-referenced, largely external, end-of-year examinations to assess potential for further learning, often with a high theoretical content. The non-traditional one uses criterion referencing and continuous assessment to assess performance, to testify to what people have done. Many in HE believe that performance-based assessment is a poor guide to an individual's potential to profit from courses that require a mastery of fundamental theoretical principles. But others do not, and are prepared to give credit and exemptions to students who have already demonstrated performance competence. A number of colleges, including Glasgow College, are involved in the Credit Accumulation and Transfer Scheme (CATS) designed to facilitate entry and exit to programmes of study at various stages. A better understanding of these issues, and of

teachers' and lecturers' beliefs about them, is important. We could unlock mass access to higher education if it proved possible to achieve an extensive interface or overlap between courses based on the two philosophies.

3.5.7. Where to intervene?

The process of acquiring the qualifications and motivation to enter HE is incremental, but some stages are more important than others. As mentioned, staying-on at school is strongly influenced by O/S grade attainment. Social class has a small direct effect on staying-on, but its main effect is indirect and through the large social-class differences in attainment at 16 that still remain despite the improvements that comprehensive reorganisation has brought. Given a certain level of O/S grade attainment, a middle class pupil is only a little more likely to stay on than a working class pupil. Hence, if working-class staying-on rates were raised to middle-class levels but social-class differences in attainment at sixteen years were unaltered, the percentage of the age group qualifying for HE would rise by only a few percentage points. But if working-class attainment levels were raised to middle-class levels at sixteen years, the qualification rate would rise from around a quarter of the age group to around a half.

The attainment of the three or more Highers required to qualify for HE is strongly related to attainment at 16. Once these are achieved, social class has only trivial effects on entry to HE.

As described, this process poses a dilemma for the BP programme: the largest effects on motivation and participation come earliest in pupils' careers and are therefore least amenable to wholesale change by a programme of the type and scale envisaged by BP. Moreover, early interventions must be sustained if they are to lead to HE entry. Later interventions, at the 16-19 stage, are more likely to produce effects. To some extent, this is closing the stable door after the horse has bolted. But the effects of later interventions, though small in relation to the total problem, are still well worth having.

4. Other routes to higher education

So far we have concentrated on the main route to HE in Scotland, direct entry from school. It is principally this route which distinguishes Scotland from other parts of the UK. But, Scotland is not alone in the steady increase it has seen in entrants to HE by other routes. In this section we consider the trends in participation by mature students, their subject choices at degree or advanced course levels, and where they choose to study.

There is no agreed definition of who counts as a mature entrant. FE and HE typically define 'matures' as those aged over 21, although 23 is sometimes used. For grant awarding purposes the SED defines a mature student in HE as someone aged 26 or over. Our figures use the 21-plus age group.

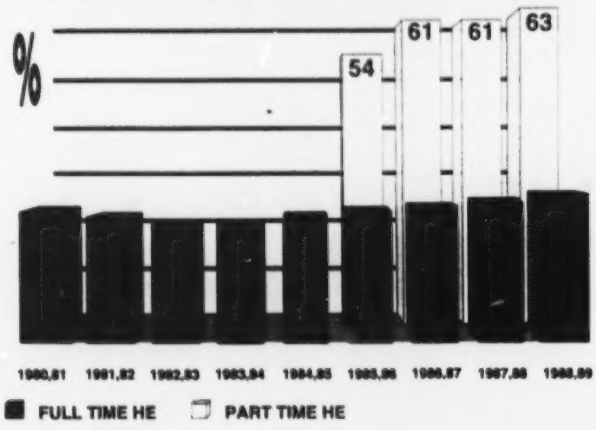
There is a strong association between social class and adult return to study. Three-quarters of adult Scots in social classes D and E have never returned to any form of education and training since school compared with only a quarter of adults in social classes A and B. Adults who return to study are mainly under 35, from skilled or professional backgrounds, and already holding some educational qualifications. Most seek to improve their qualifications for vocational reasons. In all these respects the pattern of adult participation resembles that for the young.

Trends in adult HE participation rates are broadly similar in Scotland to the rest of the UK. Mature entrants in 1988/89 represent 27 per cent of all undergraduate entrants to full-time HE in Scotland (Figure 5). While precise figures are hard to come by, it seems that mature entrants are less in evidence in universities than in other HE institutions (Figure 6). This may be a result of universities' emphasis on degree courses. Public-sector colleges offer advanced courses below degree-level as well as degree-level programmes. This means that they can be more flexible in entry requirements because progression from advanced-level to degree-level courses is possible and lower level courses can be a safety net for borderline students.

Participation in part-time courses shows even more pronounced differences between universities and colleges. Latest figures from SED show that universities (excluding the Open University) had about 500 part-time undergraduate mature entrants while

Figure 5.

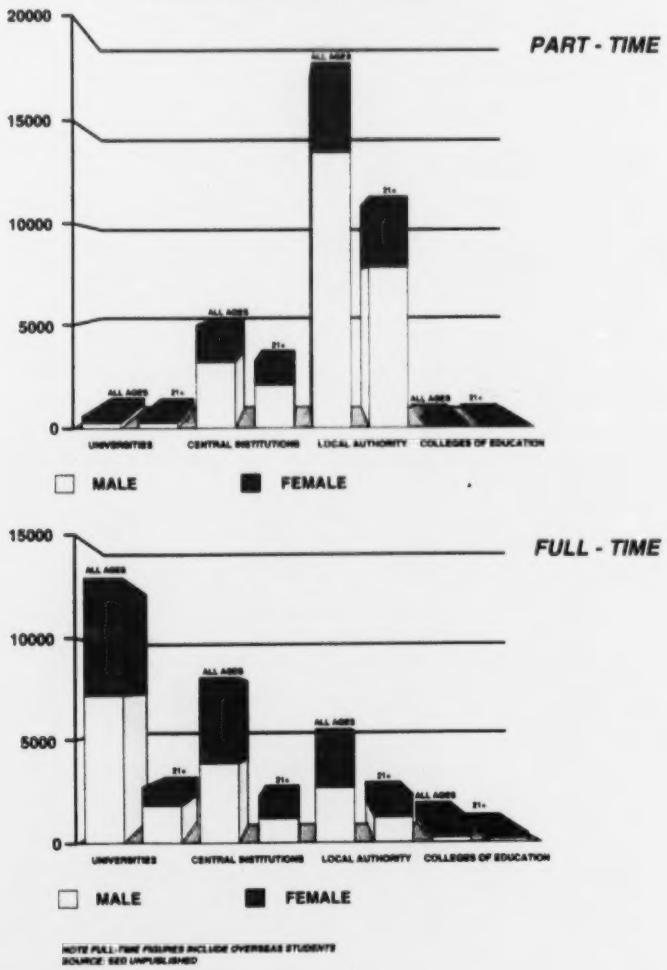
UNDERGRADUATE ENTRANTS TO HIGHER EDUCATION : PERCENTAGE AGED 21 AND OVER 1980/81 - 1988/89



SOURCE: SED UNPUBLISHED

Figure 6.

NUMBERS OF UNDERGRADUATE AND ADVANCED COURSE ENTRANTS TO HIGHER EDUCATION 1988/89



NOTE FULL-TIME FIGURES INCLUDE OVERSEAS STUDENTS
SOURCE: SED UNPUBLISHED

colleges had over 14,500. However, most of the mature entrants to colleges were *not* doing degrees. They were following advanced courses such as the Higher National Certificate. As Figure 6 shows, by far the largest number of part-time mature students are in local authority colleges. If we compare only universities and central institutions, however, the CIs far out-strip universities in part-time provision. Again, this is owing to provision below degree level. CIs have over 3,000 adult students on part-time courses, of whom only about 300 are studying part-time degrees. In general, part-time courses have proved attractive to women. However, on courses where students are sponsored by employers, there tends to be a greater proportion of men, largely because more men than women are in full-time paid employment.

As in the rest of the UK, mature students in Scotland tend to study the social sciences and humanities. Interestingly, young mature entrants (those in the 21-24 age band) are more likely than older students to prefer engineering and technology. This seems to be a UK phenomenon. Subject areas for which a significantly lower than average proportion of mature students apply include physical sciences, mathematics, combined sciences and business administration.

As might be expected, mature entrants to HE tend to apply to universities and colleges near their homes. Family and other commitments may make older students unwilling or unable to move away from home. This applies especially to women.

5. Progress in HE

Relative to the rest of Britain, higher proportions of Scots achieve qualifications in higher education. This is mainly because more of them enter HE. A corollary of this is that drop-out rates from HE tend also to be higher in Scotland, but not so high that they obviate the advantage to the age group as a whole of wider access to HE.

Drop-out rates vary considerably between courses and between institutions. But only in certain, very specific, circumstances are these rates a valid indicator of the 'value-added' of the course or institution. This is because there is also concomitant variation in the ability and prior experience of entering students. A course that achieves a low drop-out rate merely by admitting only the very best qualified students could well give a poor value-added, and would certainly exclude more potential successes than potential failures.

Drop-out rates for mature students in Scotland, as in the rest of the UK, tend to be low. Having made the effort to return, most mature students complete their courses.

The output of full-time degree graduates (university and college) increased from 10,700 in 1981 to 12,900 in 1987 - up 21 per cent. Most university graduates found employment or remained in full-time higher education. About six per cent of university graduates were believed to be unemployed six months after graduating compared to about 15 per cent from the colleges. Mature students are more likely to enter public-sector employment in general and to take up social-welfare work in particular. This perhaps reflects their over-representation on social science and humanities courses. As far as private sector employment is concerned, mature graduates are more likely to enter the manufacturing sector and engineering in particular. Perhaps this is because manufacturers are more likely than other employers to sponsor mature students through degree courses.

It would be wrong to consider progress in HE only in terms of graduation and employment, although these are clearly central. The most important gain mentioned in a recent survey of mature students was increased self-confidence. Indeed, it seems that those who have returned to education and training have more positive attitudes towards returning subsequently, and are more likely to do so, than those who have never returned. Given the demographic changes mentioned earlier, universities and colleges will look to non-traditional candidates for their degree and advanced courses. Adult students are an important source of non-traditional entry. Yet universities, in particular, have made only limited attempts to attract adults. The FE sector is the sector most likely to encourage adults to return and we come back to it in section 7.

6. Recruitment to higher education

By recruitment we mean the active attempt of HE institutions to change the level and nature of their student entry. Changes in the system of funding for universities and colleges, whereby institutions compete for students and receive a higher proportion of their income from the fees that students bring, will make recruitment a more prominent feature of HE than in the past. We have already mentioned special recruitment schemes for disadvantaged schools (section 3.5.4). A separate and specifically Scottish issue concerns cross-border flows. The UFC may well make it more difficult for English A level students to take four-year courses in Scotland.

As far as mature students are concerned, the main recruitment initiative is the Scottish Wider Access Programme (SWAP). This programme covers the whole of Scotland. Institutions of higher and further education, together with the appropriate education authorities, form four consortia to attract people to education and training, principally through the provision of access courses. Successful completion of an access course guarantees a place at an HE institution.

These courses vary considerably in their mode of attendance, entry requirements, curriculum focus and methods of assessment. In general, the science and technology courses are most stringent in specifying entry requirements. For example, the South-East of Scotland consortium specifies an O grade pass in maths, or equivalent, and prefers entrants to have an O grade pass in English. (Intending students can sit college-devised entry examinations as an alternative.) The access courses in social sciences and humanities have no entry requirements beyond the stipulation that students must be over 21. Furthermore, where Scotvec modules are used on the science and technology access courses, successful completion of these modules by students does not guarantee a place at an HE institution. This is dependent upon an additional grading system which usually includes an overall assessment by the tutor on a three or five point scale of the student's ability to cope with degree level work.

SWAP stresses the need for good guidance for students before and during access courses, and links between the local authority careers service and FE/HE are a potential area of interest for BP. Most SWAP co-ordinators would recognise the need for better links with employers and there are to be moves in this direction from autumn 1991 onwards. BP might wish to assist in raising the profile of access with employers, for example by encouraging employers to support employees on access schemes or by encouraging recruitment of access graduates.

It is worth mentioning that we have been able to locate only one science and technology course offered in a university, that in Aberdeen. All the others are offered by FE colleges whose staff do most of the teaching. (University science and engineering staff may have neither the time nor the inclination to teach such courses.) We are unaware of any substantial revision of HE curricula to take account of the possible influx of students from access courses, even though one aim of SWAP is to promote such changes. Of course, this type of curriculum development runs the risk of being seen as offering less rigorous and demanding courses for access students.

Beyond the SWAP access courses that guarantee an HE place, there remain 'traditional' access courses which focus on generic topics such as returning to study, or on basic literacy or numeracy. These courses do not guarantee an HE place. Their aim is to increase students' self-confidence and to encourage greater participation in education and training at all levels. They typically have no entry requirements and vary in terms of whether and what kind of certification they offer students.

There have been other kinds of attempts to increase participation in HE by mature students, part-time degree provision being the most notable. However, there are differences in approach between universities and colleges. Universities have concentrated on providing part-time access to existing degree courses. Colleges have tended to develop special provision for part-time students. Colleges (including colleges of education) have 44 per cent of the courses and 72 per cent of students; universities have 54 per cent of courses but only 28 per cent of students. It should be noted that part-time degrees are not being offered at nine of Scotland's HE institutions. This is probably because of resource implications, in particular the financial implications of the formula for the 'full-time equivalence' of part-time students. It is likely, however, that HE will do more in the future to encourage part-time access. Part-time courses have been particularly successful in attracting women.

7. Further education

There are four distinctive features of FE in Scotland. First, almost all non-advanced courses are modularised as a result of the Action Plan initiative. Modules are units of work of about 40 hours, and student progress is typically monitored by continuous assessment. There are few modules where a student passes or fails on the basis only of an end of unit test. There are no grades of pass or fail. For each module, a student is awarded a National Certificate by Scotvec, the national certificating body, on the basis of college assessments. Modules can be linked together in a variety of ways, and particular combinations are now recognised as equivalent to, for example, City and Guilds and BTEC qualifications. The system provides flexibility: students can pick and mix modules within certain limits; employers can ask colleges to provide short courses based on modules to meet their particular needs; and modules can be studied full-time (the usual complement is 21 or 22) or part-time, and in various locations. A student need not stick with one institution and, indeed, can study at home through the substantial open-learning provision now available. Some modules require no entry qualifications at all. Others stipulate O or S grade passes, or specify the successful completion of particular modules before entry can be gained. Some colleges are experimenting with assessment of prior-learning schemes, to certificate those who possess the requisite knowledge and skills but who have not undergone the 40 hours of study. Such students thereby have their knowledge and skills recognised and can proceed to more advanced programmes. Modular provision is extensive. The Scotvec catalogue now contains 17 sections of modules. Each section represents a particular subject area. There are literally hundreds of modules, and this indicates a need for good quality guidance in choosing modules in worthwhile combinations both in their own right and with a view to progression to more advanced study.

Second, the modularisation of advanced courses, particularly HNC and HND, is well under way. Again this is intended to provide the same kind of flexibility as non-advanced provision in mode of attendance, programmes, location and responsiveness to needs. The modularisation of non-advanced and advanced courses in colleges should begin to loosen boundaries among the various sectors of HE provision. Combinations of non-advanced and advanced modules can lead to progression to degree courses. Whether the integration of traditional and non-traditional provision can be made universal is an open question. The universities in particular have tended to be conservative in setting entry requirements. Individual universities vary, however, and most are changing. Nevertheless, the system is still heavily geared towards the school leaver with a good spread of Highers and O grades.

Third, the tradition in Scotland is that O grades and Highers are studied at school and not in FE. Even re-takes to improve grades are typically done in schools. It tends to be adult students who go to college to acquire the Highers and O grades for entry to university or college. However, adults are increasingly returning to school for this purpose among others, and recent estimates indicate that some four per cent of the total secondary school population are adults.

Fourth, as noted earlier, a majority of school leavers entering full-time FE courses do so after one or two post-compulsory school years and not at 16. FE courses (or programmes of modules) for school leavers are almost all vocational, are usually occupationally specific, and typically constitute an end-on to a period of post-compulsory schooling rather than an alternative to it.

Finally we note that, under the provisions of the Self-Governing Schools etc (Scotland) Act, FE colleges will become self-governing. This means that colleges will have greater flexibility in the ways they attract and spend money.

8. A strategy for intervention

This section discusses a strategy for intervention and makes specific proposals for types of projects.

8.1. Main elements

In brief, a strategy can be formulated in terms of two considerations. The first is whether intervention is to be on the supply side (numbers and types of places) or on

the demand side (numbers and types of young people). We think it can be, and should be, on both sides. The second is whether intervention is to be at a micro level (course, school or college) or at a macro level (HE sector, overall system). Again, we think both are possible.

Closely related to these two main considerations are three further questions or elements relating to action, audience and evaluation (see Figure 7). The first (action) is whether BP should attempt radical innovations, or build on desirable features and changes already extant. We presume that BP has already chosen the latter, and observe that the proposals contained in *Aiming for a College Education* and *Increasing Participation in Higher Education* do just that. Second, we think it desirable that the evaluation component of the BP programme should contain both formative elements (aimed at facilitating agreed changes) and summative elements (aimed at overall judgements and at persuading people to agree the case for new changes). Third, should the programme be directed towards practitioners or towards those who manage practitioners including, ultimately, their political masters? We think there is scope for both.

Of all these considerations, those of supply and demand are most critical.

Figure 7 Strategic Schema for Types of Projects

	Micro course, institution	**Macro** system
Supply of HE places	1. part-time courses 2. curriculum in HE 3. special entry 4. school differences	9. effect of supply 10. funding and management 11. two-year Higher 12. a single curriculum
	8. employers' selection criteria	
Demand of students for places	5. guidance 6. employer guarantees 7. top-up bursaries	

Action	
projects may be exemplary or 'grassroots', may reinforce current trends or innovate	projects few and exemplary; action is mainly persuasion

Evaluation	
mainly formative (for practitioners) and for accountability (to BP)	summative (of existing states) but formative for policy change

Audience	
mainly practitioners	mainly wider public and politicians

8.2. Supply and demand

The flow of young people into HE is critically influenced by two factors. On the supply side, the types and numbers of available places directly affect a young person's propensity to apply to HE. On the demand side, success in the school system is crucial. Between the ages of twelve and eighteen, success emerges sequentially and not at a single point. Clearly, staying on to post-compulsory schooling is important, but even more important is attainment at sixteen years. Both are related to social background. But staying on is more affected by attainment at sixteen years than by social background.

The supply of places influences the propensity to apply to HE. In any one year, better-qualified young people are most likely to apply; but for any level of school qualification (eg four Highers) the propensity to apply is greater at times when the supply of places is greater. In other words, applying to HE is one of the points at which supply and demand meet: young people will apply if they think they will get in; if not, not. We do not dismiss economic effects on the propensity to apply. But about two in ten qualified young people currently do not apply to HE. We think that at least half of them (ie one in ten of qualified young people) would apply if places were available. (This judgement is based on observation of HE application rates since 1962.)

One can think about supply not just in terms of amount (numbers of places) but also in terms of form (full-time, part-time, modular, broken/unbroken sequence etc) and accessibility (geographical, hard copy, electronic). The level, form and accessibility of supply influences which types of people apply to, or are selected for HE, and at what age or stage. In general, however, the more restricted the supply the deeper and earlier will be the influence of HE on demand. When supply is restricted, as in the past ten years, HE institutions tend to resort to traditional, norm-referenced criteria for admission (basically numbers and grades of school attainments). This in turn has a conservative influence on the curriculum and militates against the growth of alternative curricular principles that could help increase demand.

8.3. Micro or macro?

The supply and demand sides are important both because of the scale of their effects on HE participation and also because they affect each other. Ideally, there must be change in the system (macro) as well as grass roots change in individual institutions (micro). Curriculum change is more likely to be effective when there is also a change in the opportunity structure that reinforces an existing curriculum configuration. In general, BP will wish to consider interventions based on individual institutions, but it should be aware that the effect of such interventions depends partly on the macro context of supply, demand, and inter-institutional relations.

8.4. Action: change and variation

BP interventions are likely to be more effective where they promote extant features of the system or assist changes that are already under way. On the demand side one such change is the rising standard of attainment in the school population. On the supply side, relevant changes include the moves towards modular provision in school and HE; developments in wider access, credit accumulation and credit transfer; the incipient emergence of a common framework of assessment and certification for non-traditional and traditional curricula; and the prospect of weakening boundaries between advanced and non-advanced courses and between sectors of HE. These changes, in turn, are related to a growing philosophy of individualised educational provision, sensitive to the needs, opportunities and constraints of an individual's life-course, with multiple entry and exit points, and with different types of levels of certification.

During the 1980s the fear of demographic decline in HE has been an important stimulus to these changes. For HE, and especially universities, that fear is now past; if it threatens at all, it threatens only for a year or two in the mid 1990s. (For employers, however, the problem is more long-lasting.) The volume of young persons' demand for HE will increase sharply from the mid 1990s onwards. BP will wish to consider how it can help to ensure that desirable changes that have been stimulated by the fear of demographic decline in HE can be sustained as that fear recedes.

Many of the changes that BP might wish to promote are common to both England and Wales and to Scotland. But several in Scotland are further advanced, or have always existed as features of the Scottish system. BP may wish to consider how far it wishes not merely to sustain desirable features and changes within Scotland, but also to promote those aspects as exemplars to the rest of the country. We have in mind, in particular, the more modular nature of post-compulsory provision in Scotland which promotes higher participation rates (the one-year Higher etc), and also the role of the National Certificate.

Similar strategic choices face projects which focus on the micro level. BP may wish to encourage 'grassroots' change which is of value in its own right, or it may wish to promote examples of good practice which can be used to encourage change elsewhere. In a 'grassroots' project BP would seek to maximise 'value added' within the supported project; in an 'exemplary' project BP would seek to maximise value

added more widely, to include activities not directly supported by the project but influenced by its example. (In an extreme case an exemplary project might latch on to an existing example of good practice and concentrate all resources on evaluation, publicity and other means to promote the replication of the good practice elsewhere.)

8.5. Evaluation: formative or summative?

BP will wish to evaluate, if only to satisfy itself that its money has been properly and effectively spent. But BP should also regard evaluation as part of the action. This is clear enough in the case of formative evaluation, by which we mean evaluation designed to assist an agreed programme and therefore completed during the course of that programme. By contrast, summative evaluation considers the total achievement of an intervention, and therefore outlasts it. But evaluations need not be tied to particular interventions, and they can also have a role in the action. *Increasing Participation in Higher Education* is an example: an overall evaluation of the British situation, aimed at persuasion. In the case of exemplary projects, discussed above, evaluation can play an important role in disseminating models of good practice.

8.6. Audience: practitioners and policy makers

To achieve sustained changes on either the supply or demand sides would require a political input as well as an input from practitioners. In choosing projects, therefore, BP might wish to ask not only whether they will produce sustainable grassroots change, but also whether they will furnish persuasive examples and arguments at a political level. This will have implications for the type of evaluation required, and the audience or audiences for the evaluation.

8.7. Possible projects

On the basis of the foregoing analysis we have twelve types of project to suggest. All fall within the priorities set out in *Aiming for a College Education* and *Increasing Participation in Higher Education*. They are set out schematically in Figure 7 in terms of a framework that summarises the preceding discussion of strategy. The two main dimensions of the figure are supply/demand and micro/macro. Underneath the figure are shown the three other considerations of action, evaluation and audience. We attach more importance to the strategic considerations summarised in Figure 7 than to the types of project, which are, at best, illustrations of possible approaches within the suggested framework. BP may wish to invite proposals for projects within these or similar strategic guidelines. This would help to elicit ideas from those in a position to implement them.

1. Part-time courses

The incidence of part-time degree courses in universities and colleges varies greatly, but there is a growing willingness in all institutions to provide them. One impediment is resources; part-time courses often require a substantial initial commitment of resources (including lecturers' time) against an uncertain return. A second impediment is the range of prescribed courses: all contributing departments must agree to part-time provision before students can be offered a meaningful choice of part-time courses. A project here could aim to do two things: increase the extent of part-time degree provision; and encourage curriculum development under the aegis of part-time degrees. Institutions or faculties which showed a commitment to developing part-time courses that were more than a re-hash of existing full-time degrees would be rewarded. More specifically, lecturers could be paid for evening teaching, or institutions/faculties could be given a grant to develop specific kinds of part-time degree provision. Such provision would increase the supply of HE places and would be attractive to people in employment wanting to upgrade their qualifications for career enhancement. There is therefore a case for relating developments here to employers' own education and training initiatives. Part-time degree courses would also be attractive to those whose domestic commitments made full-time study impracticable. In the longer term, part-time courses are also likely to be a more common feature of provision for young persons entering higher education by traditional routes. Proposals and projects which cater for the increasing diversity of part-time demand are to be encouraged.

2. Curricular integration in higher education

In some university degree courses, qualifications like the HND give exemption from the first two years; in others, departments insist that the curricular philosophy of HND work differs too much from that of university work. Any such difference will be increased by

the current modularisation of the HND with its increased emphasis on criterion referencing. A project here would encourage departments to review their curriculum with the view to giving exemptions. Departments already doing this could be rewarded, and perhaps paired with resistant departments so as to encourage change in the latter.

Such a project could be aimed at two groups in particular. First there are the young people with the one or two Highers passes that put them on the margins of qualifying for HE by the time they leave school. Second, one might develop links between FE and HE already established through SWAP. Students gaining HNDs in FE might be guaranteed degree places in specific HE institutions with exemption from the first two years. There would be rewards for HE institutions which adapted their existing curriculum to take account of new intakes in year three of the degree and which made special entry arrangements through guidance or other provision so as to ease the entry of HND students to degree courses.

3. Special entry schemes

Such schemes lie at the interface of supply with demand, and one currently operates in the consortium of universities and colleges targetted by BP. Through such means as summer schools, school visits and lecturer/teacher liaison, pupils in targetted schools may be engaged from a relatively early age in working towards HE entry. Relatively small amounts of money could be spent effectively here to support these activities. Such projects could also be promoted as exemplars both within the institutions concerned, and in neighbouring institutions or groups of institutions. For example, admissions officers could be encouraged to consider their entry requirements and practices.

4. School differences

BP is already linked to a number of schools. Differences between schools in the proportions of pupils they send to higher education cannot be explained solely by differences in SCE achievement. Can unsuccessful schools learn from successful schools? A project here could support the temporary exchange of staff between schools with different records of pupil entry to higher education. Also, teachers in schools linked to BP might be encouraged to contribute to discussion of the issue.

5. Guidance

This is the most important of the demand side measures. Wider access will be in the context of greater flexibility and individualisation of choice. These already characterise post-compulsory provision in Scotland more than in England and Wales. But the quality of guidance needs improving both at school and in HE. Intervention projects would need to be coordinated with local careers services. There is a need both for pre-course guidance and for continuing and pre-exit guidance. It is important that students are given good advice about the HE options available, that problems during courses are quickly identified, and that students are well informed about employment opportunities and further study.

An Education Shop is under discussion in Glasgow with the support of four HE institutions and the Scottish Development Agency. Further possibilities include:

i. the provision of additional counselling support, targetted at 15-plus year olds in selected schools, and

ii. the provision of careers literature and materials designed to emphasise flexible opportunities for access to HE.

iii. There would be value in a staff development programme linking school, local-authority careers officers and HE staff. Joint staff development would be innovative and might pay dividends in better communication among sectors.

iv. Also valuable would be support for special HE guidance posts whose remit would be pro-active guidance. They would develop systems which sought to attract students to HE, routinely monitor students' progress in HE and take initiatives in bringing employment opportunities to the attention of students. Most guidance at present is reactive, dealing with problems which are brought to staff's attention.

6. Employer guarantees

One reason why young people do not continue with full-time education is the fear that they will miss out on age-related opportunities for entry to the labour market and not

compensate for this by getting sufficiently good additional qualifications at school. BP could encourage employers to make a type of compact with individual students whereby they would be guaranteed a job in the event of their not entering HE. The expectation would be that most such students would in fact qualify for and enter HE. It seems that there is only limited scope for BP to promote compact schemes among its own contractors, and that employers more generally would have to be persuaded to give such schemes support.

7. Top up-bursaries

Around one in seven stayers-on at school, and a larger proportion of full-time college entrants, receive means-tested local authority bursaries. The sums involved are small (much smaller than the YT allowance, for example) and the research evidence suggests that bursaries are not a major influence on participation for a majority of stayers. There is a case for topping-up bursaries in cases of exceptional need where they would make the difference between staying or leaving. Such a scheme would need to ensure that the additional element was not clawed-back by a reduction in the basic bursary. In some instances it would be related to employers' guarantees (previous item). BP itself does not fund individual students. A distribution mechanism would therefore be required, such as a block grant to an institution.

8. Employers' selection criteria

This lies between the micro and the macro. One reason why it is difficult to introduce non-traditional types of curriculum and certification is that employers continue to use traditional selection criteria. Sometimes this is because they do not understand the meaning and purpose of the innovations in question. There may be scope, perhaps through the Scottish CBI, to improve employers' knowledge and understanding of educational change. Early indications from the Teacher Placement Scheme sponsored by IDS/UBI are that teachers are learning a good deal about 'industry' but that 'industry' is not necessarily learning a good deal about education. This scheme places teachers for only two weeks. BP itself has a teachers-into-industry scheme with a limited number of one-year secondments. The Company also encourages all its line managers, including those responsible for recruitment, to have some relation with the education system.

Projects 9 to 12 all concern the macro or system level. It is unlikely that BP could achieve change at this level simply by direct funding intervention. Nevertheless, summative evaluations are themselves a form of action and could help promote macro change by influencing the views of significant groups. It may be that any BP contribution here would be to facilitate debate and to identify activities that other types of body might fund. It is with this in mind that the remaining four project areas are suggested.

9. The effect of supply on demand

Government still plans student numbers in higher education in the light of its expectations of their propensity to apply. It does not yet recognise the force of the argument that, within certain broad limits, students' propensity to apply is itself a function of the supply of places.

10. Funding and management changes

Scottish colleges are to become self-managing, and both they and the universities will derive higher proportions of their income from non-public sources and from student fees (ie from the consumers). Employers will be more extensively involved in college councils. There is a need for more thinking on the likely effects of these changes on access and quality, and on the benefits both to employers and to the colleges themselves.

11. The two-year Higher

The Howie Committee heard evidence in 1990 and will be reporting by the end of 1991. Although its formal remit is confined to schooling, it is clear that the Committee's recommendations will have implications for all 16-18 provision, and also for the continuing education of the young, both full and part-time. The Committee has indicated that it is concerned with the schooling of all 16-18 year olds, not just those who might do Highers. Educators, trainers and employers all have an interest, therefore, in the Committee's deliberations. Central issues are: whether academic and vocational courses should be combined in a single curricular and assessment

framework; whether the average age of exit from full-time schooling could and should be moved towards 18 years; whether provision for this age band should be primarily education led, and school led; and whether proposed changes would increase participation rates in higher education. Thus all individuals and institutions with an interest in HE access will be concerned with the Committee's recommendations.

12. A single post-compulsory curriculum?

Projects 1 and 2 cover aspects of this theme at a micro level and in relation to HE. However, mass access to HE requires that the problem of the two curricular philosophies - one knowledge-based, the other competence-based (section 3.5.6) - be addressed for all post-compulsory education and training. A sharply focused, and mainly philosophical, evaluation of the issues here could be of considerable practical benefit.

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Abbreviations

ACPG	Area Curriculum Planning Group
A level	Advanced level
BTEC	Business and Technical Education Council
BP	British Petroleum
CATS	Credit Accumulation and Transfer Scheme
CBI	Confederation of British Industry
CI	Central Institution
CSYS	Certificate of Sixth Year Studies
DE	Department of Employment
DES	Department of Education and Science
F	female
FE	further education
FT	full time
FTHE	full-time higher education
GCE	General Certificate of Education
HE	higher education
HNC	Higher National Certificate
HND	Higher National Diploma
IDS	Industry Department for Scotland
M	male
NAFE	non-advanced further education
NC	National Certificate
O grade	Ordinary grade
PTHE	part-time higher education
S grade	Standard grade
SCE	Scottish Certificate of Education
SCOTVEC	Scottish Vocational Education Council
SED	Scottish Education Department (as from January 1991 SOED - Scottish Office Education Department)
SWAP	Scottish Wider Access Programme
S2	Secondary two, or second year (typically for 13-14 year old pupils)
S5	Secondary five, or fifth year (typically for 16-17 year old pupils)
S6	Secondary six, or sixth year (typically for 17-18 year old pupils)
TA	Training Agency
UBI	Understanding British Industry
UFC	Universities Funding Council
UK	United Kingdom
USA	United States of America
YT	Youth Training
YTS	Youth Training Scheme

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